



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,431	03/27/2002	Claude Yonnet	MEW 087-100/011018	3416

24118 7590 07/12/2004

HEAD, JOHNSON & KACHIGIAN  
228 W 17TH PLACE  
TULSA, OK 74119

EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
----------	--------------

3753

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/980,431	YONNET, CLAUDE	
	Examiner	Art Unit	
	Ramesh Krishnamurthy	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 18 and 20 is/are allowed.
- 6) ☒ Claim(s) 1 - 8, 10 - 14, 17, 19 & 21 is/are rejected.
- 7) ☒ Claim(s) 9 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____  | 6) <input type="checkbox"/> Other: _____                                    |

This office action is responsive to communications filed 06/21/2004.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/21/2004 has been entered.

**Claims 1 – 21 are pending.**

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 8 and 10 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art admitted to by the applicant (Figs. 1 – 4) in view of the document (D1) - Automatischer Durchflussregler, Technische Rundschau, Vol. 62, No. 44, 10/16/70, page 29.

The prior art admitted to by the applicant (Figs. 1 – 4) discloses the invention including a pilot valve (1) controlling a pressure reducing valve (2) with the exception of explicitly disclosing a pilot valve that has a fail safe arrangement and absence of a leaky seal.

The document D1 discloses (Fig. 2) a valve comprising: biasing means to control a gate for controlling fluid flow through a control chamber; a second chamber being

Art Unit: 3753

isolated from fluid communication with said control chamber and with the pressure reducing valve being controlled is sealed by a second chamber diaphragm into which control pressure is applicable for also controlling the operation of the gate, whereby, in use, an increase in control pressure acts to reduce fluid flow through the gate; the control pressure is different from the outlet pressure; and wherein the side of the diaphragm against which the control pressure is not applied, is in fluid communication with the control chamber. The valve in D1 is disclosed as being capable of use with a fluid which here is taken to include water, as well.

It would have been obvious to one of ordinary skill in the art to have substituted the valve in Fig. 2 of D1 for the pilot valve in the prior art admitted to by the applicant, for the purpose of obtaining a fail safe arrangement and absence of a leaky seal, in controlling the pressure reducing valve.

It is noted that the valve in D1 does not explicitly disclose a diaphragm sealing the part of the valve housing including the spring from the control chamber. However, each of the pilot valve arrangements in Figs. 1- 4 in the prior art admitted to by the applicant discloses such a provision. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided such a diaphragm for isolating the spring chamber from the fluid flowing through the pilot valve.

4. Claims 17, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of prior art admitted to by the applicant (Figs. 1 – 4) in view of the document (D1) as applied to claims 1 – 8 and 10 – 14 above, and further in view of Yonnet (US 5,460,196).

Art Unit: 3753

In the device according to the combination of prior art admitted to by the applicant (Figs. 1 – 4) and the document (D1), the inlet pressure to the pilot valve is being used as control pressure.

Yonnet ('196) discloses (Col. 10, lines 27 – 32) that is known in the art to use gas pressure as control pressure since such an arrangement would potentially allow greater flexibility in the range of control pressures to be applied.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the combination of prior art admitted to by the applicant (Figs. 1 – 4) and the document (D1) an arrangement that involves the use of gas pressure as control pressure for the purpose of obtaining greater flexibility in the range of control pressures to be applied, as recognized by Yonnet.

5. Claims 15, 18 and 20 are allowed.

6. Claim 9 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims rejected herein have been considered but are moot in view of the new ground(s) of rejection.

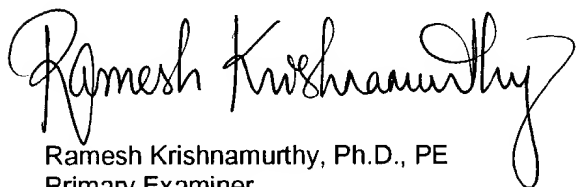
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (703) 305 - 5295. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Scherbel, can be reached on (703) 308 - 1272. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 - 9306.

Art Unit: 3753

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Ramesh Krishnamurthy". The signature is fluid and cursive, with the first name "Ramesh" and last name "Krishnamurthy" clearly distinguishable.

Ramesh Krishnamurthy, Ph.D., PE  
Primary Examiner  
Art Unit 3753